Abstract

A system for processing stereo matching of a video image sequence in a real-time mode is provided. The system includes a signal converting means for converting an image input from a first camera and a second camera into a digital

5 signal; and an image matching means for calculating a determined matching cost based on a pair of pixels in one scan line of the first and second digital image signals, tracing the decision value which determines the minimum matching cost, and outputting the decided value as an estimated disparity according to determined activation information; and a display means for displaying the output from the image

10 matching means. According to the system, real-time stereo matching is enabled, by parallel processing or video image sequences using an algorithm which is based on a new dynamic trellis based method and is optimal in the Bayesian sense.

17